

## CLAIMS:

1. A display device, comprising a screen (1) with a plurality of picture elements (8, 10, 11), a planar anode electrode (12), located in the screen, a plurality of electron emitting structures (8, 10, 11), each corresponding to a picture element, the electron emitting structures (8, 10, 11) being arranged to emit electrons intended to be accelerated towards the anode (12), and means for measuring the anode current, characterized in that the anode electrode is divided into a plurality of electrically separate planar anode portions (12a, 12b, ..., 12l), wherein each anode portion comprises current measuring means (15a, 15b, ..., 15l) for measuring a portion of a total anode current.  
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- 10 2. A display device according to claim 1, wherein the picture elements are arranged to be activated in groups, and wherein the anode portions are arranged in such a way that picture elements, which belong to a given group, correspond to different anode portions.
- 15 3. A display device according to claim 2, wherein the picture elements are arranged in lines and columns, the display device being arranged to activate a line of picture elements at a time, and wherein each column has a corresponding anode portion substantially in the form of a strip.
- 20 4. A display device according to claim 1, comprising a memory (20) for storing for each picture element information relating to the properties of the corresponding electron emitting structures, which information is dependent on an anode current measured for that picture element.
- 25 5. A display device according to claim 4, wherein the display device is arranged to use information stored in the memory (20) for adjusting drive signals for the electron emitting structures.

6. A display device according to any of the preceding claims, comprising means (23) for integrating current data measured by said current measuring means.
7. A display device according to any of the preceding claims, comprising means 5 (19) for multiplexing current data, measured by said current measuring means.
8. A display device according to any of the preceding claims, wherein each current measuring means comprises a current mirror.
- 10 9. A display device according to any of the preceding claims, wherein each electron emitting structure (8, 10, 11) comprises a gate electrode (11) and a cathode electrode (8).
10. A display device according to any of claims 1-8, wherein each electron 15 emitting structure comprises a light source and a portion of a photoelectric layer, the portion of the photoelectric layer being arranged to emit electrons when illuminated by the light source.